"New Terrorism" = Higher Brutality? An Empirical Test of the "Brutalization Thesis"

Jäckle, Sebastian; Baumann, Marcel

Postprint / Postprint
Zeitschriftenartikel / journal article

This is an accepted manuscript of an article published by Routledge in Terrorism and Political Violence, Vol. 29, No. 5, 2015, pp. 875-901 available online at: https://doi.org/10.1080/09546553.2015.1087399

"New Terrorism" = Higher Brutality? An Empirical Test of the "Brutalization Thesis"

Sebastian Jäckle, University of Freiburg
Marcel Baumann, University of Freiburg

Abstract

This article focuses on the so-called "brutalization" of terrorism. The brutalization thesis as part of the larger theoretical concept of "new terrorism" argues that "new terrorism" is more brutal than "old terrorism." Many scholars claim that the 9/11 attacks mark the beginning of a new era of terrorism that has lifted international as well as domestic terrorism to a new level of violent brutality. Others argue that this process has already started in the early 1990s. After discussing possible ways to operationalize a brutalization of terrorism, for example focusing on suicide bombings or terrorist attacks against soft targets, this article tests the empirical credibility of the brutalization thesis regarding both potential starting points. Data from the Global Terrorism Database (GTD) shows that only three out of nine indicators increased significantly during the 1990s, partially backing the idea of a general brutalization, whereas increasing numbers of suicide attacks and beheadings after 9/11 support the notion of a qualitative change in terrorism and its brutality connected with the idea of maximizing media and public attention. Yet, these developments are regionally limited and the brutality of this "new terrorism" exceeds the levels known from the zenith of "old terrorism" in the 1970s and 1980s only in few cases.

Introduction

Terrorism has always been brutal. There is no way of denying that. Yet, particularly in the aftermath of the 9/11 attacks questions arose whether a new form of terrorism had developed that had shifted to a new level of violent brutality. Quickly afterwards, the thesis of an increasing terrorist brutality became a significant part of a broader theoretical concept, which is usually summed up by the term "new terrorism." The concept of "new terrorism" is constructed around four main propositions:[1]

1. Whereas "old terrorism" was rooted in local political struggles, "new terrorism" is motivated on religious grounds.
2. On an operational level, terrorist organizations that are associated with the term "new terrorism," for example Al-Qaeda, are structured in the form of horizontal networks. By contrast, "old terrorism" was organized hierarchically.
3. New terrorist organizations are willing to use biological, chemical or even nuclear weapons of mass destruction – and to a large degree they have the capacities of doing so.
4. "New Terrorism" is much more violent and brutal than old terrorism. We call this the "brutalization thesis" of "new terrorism."

This article focuses on the last proposition of the new terrorism argument: the brutalization thesis. Our central aim is to empirically analyze its credibility. Moreover, we add a temporal component to the general brutalization question and ask – assuming we detect any signs of brutalization at all – when exactly this period of high brutality began. We concentrate on two potential starting points students of terrorism have been discussing: Following Steven Simon and Daniel Benjamin, some regard the early to mid-1990s[2] as the beginning of this area of new and more brutal terrorism, while others see the 9/11 attacks as the point when the brutality level of terrorism shifted to another quality.

In order to answer these questions, this paper will take a two-step approach. We first discuss different methods and ways to operationalize the term "brutality" of terrorism. Secondly, we

[1] Ersun N. Kurtulus, "The `New Terrorism´ and its Critics," *Studies in Conflict & Terrorism* 34, no. 6 (2011): 476-500.

[2] Steven Simon and Daniel Benjamin, "America and the New Terrorism," *Survival* 42, no. 1 (2000): 59-75.

analyze empirical data from the Global Terrorism Database (GTD) in the light of these operationalizations.[3] Doing so enables us to show whether there has been a significant brutalization of terrorism since the last 15 to 20 years – or not. Our quantitative approach does not require us to engage in the general debate surrounding the thesis of "new terrorism" in a normative sense. Our analysis rather focuses exclusively on one specific proposition of the concept of "new terrorism" – namely the brutalization thesis. Such an approach differs from a large part of the state of the art: Most researchers either argue in favor of or against the thesis of "new terrorism." Indeed, most of these research projects are explicitly theory-guided or of a normative nature. While these approaches created very valuable findings that raised our general understanding of terrorism, they often lack coherent empirical tests of their conclusions. That is the lacuna we wish to fill with this article. We limit the scope of our analysis to an empirical test of the brutalization thesis which has been put forward by a number of scholars.[4]

The article is structured as follows: The second section gives an overview of the discussion about the brutalization thesis, which is part of the broader theoretical concept of "new terrorism." The third section elaborates on different ways of understanding and consequently measuring the concept of brutalization of terrorism. We identify nine indicators of brutalization. As indicated above, our aim is not to develop an exclusive and concise definition but to present several strategies to look at brutalization of terrorism from different points of view. In particular, we will put a special emphasis on the distinction between "soft" and "hard" targets. The fourth section describes the GTD. On that basis, we conduct the empirical test of the brutalization thesis in the fifth section. The final section summarizes the results.

A brief Research Overview: "Old" versus "New Terrorism"

The major difficulty of terrorism research seems to be the starting point: defining the core subject, namely the term "terrorism." Easson and Schmid for example collected more than 250 different definitions of terrorism.[5] While this problem of disputed definitions of terms might be a common and general feature of social sciences, the problem becomes extremely severe with

[3] The GTD enables a very comprehensive overview of worldwide terrorist activities. During our period of investigation from 1970 to 2011 the data set lists more than 100,000 cases of terrorist attacks.

[4] On the brutalization thesis see for example Herfried Münkler, *Die neuen Kriege* (Reinbek bei Hamburg: Rowohlt, 2004), 99ff.; Peter Neumann, *Old and New Terrorism* (Cambridge: Polity, 2009); Steven Simon and Daniel Benjamin, "America and the New Terrorism," *Survival* 42, no. 1 (2000): 59-75.

[5] Joseph J. Easson and Alex P. Schmid, "250-plus Academic, Governmental and Intergovernmental Definitions of Terrorism," in Alex P. Schmid (ed.), *The Routledge Handbook of Terrorism Research* (London: Routledge, 2011), 99-157.

respect to the term "terrorism." Many scholars argue that the term carries (too) much ideological, political or normative baggage to be defined. We will not take part in these general debates but instead follow a pragmatic approach. We adopt the GTD definition which is coherent in nature and can be regarded as a widely accepted standard within terrorism research:[6] Firstly, in order to be defined as a "terrorist act," an incident has to be an "intentional act of violence or threat of violence by a non-state actor."[7] Secondly, at least two of the following three criteria have to be met, as well:

1. "The act must be aimed at attaining a political, economic, religious, or social goal."
2. "There must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) other than the immediate victims."
3. "The action must be outside the context of legitimate warfare activities."[8]

The "definition problem" cannot be evaded either when discussing the thesis of "new terrorism." Many authors use this term to make the claim that a fundamental strategic change in the character of terrorism has happened. More specifically, this means that old terrorism has been a domestic threat – confined to nation states; while "new terrorism" has developed into a global threat.[9] Many authors also try to support the thesis of "new terrorism" by analyzing the (allegedly) new quality of terrorist violence which is in their eyes the key criterion to distinguish between "old" and "new terrorism."[10] French philosopher André Glucksmann puts this point in another way:

> The "human material" has no value for the terrorists who prove the strength of their convictions and the power of their weapons with the murder of the disarmed, whoever they may be and whatever they may think, whether believers or not.[11]

---

[6] For other studies using this definition see, for example: Vani K. Borooah, "Terrorist Incidents in India, 1998-2004: A Quantitative Analysis of Fatality Rates," *Terrorism & Political Violence* 21 (2009): 476-498; Walter Enders, Todd Sandler, and Khrsrav Gaibulloey, "Domestic Versus Transnational Terrorism: Data, Decomposition, and Dynamics," *Journal of Peace Research* 48 (2011): 319-337; Joseph K. Young and Laura Dugan, "Veto Players and Terror," *Journal of Peace Research* 48 (2011): 19-33.

[7] GTD (Global Terrorism Database) 2013, "Data Collection Methodology," May 11, 2013, http://www.start.umd.edu/gtd/using-gtd/.

[8] GTD (Global Terrorism Database) 2013, "Codebook. Inclusion Criteria and Variables," May 11, 2013, http://www.start.umd.edu/gtd/downloads/Codebook.pdf, 6.

[9] Herfried Münkler, *Der Wandel des Krieges. Von der Symmetrie zur Asymmetrie* (Weilerswist: Velbrück, 2006), 234.

[10] See for example Bruce Hoffmann, *Inside Terrorism* (New York: Columbia University Press, 2006).

[11] André Glucksmann, "The World of Megaterrorism," *Wall Street Journal*, March 21, 2004, http://www.wsj.com/articles/SB107964901046859583.

Within the logic of this argument, "old terrorism" is characterized by acts of violence within certain ethical limits, i.e. a limited use of violence. Thus, regarding the quality of violence of "old terrorism," attacks were only carried out against so-called "legitimate targets." This means that only "representatives" of the hostile state, which is the enemy of the terrorists, may be attacked and killed: policemen, soldiers or members of the government who are viewed as "legitimate targets" according to the logic of "old terrorism." Thus, organizations which are associated with "old terrorism" are aware of the ius-in-bello criterion which is an essential part of the so-called just war doctrine. The just war doctrine goes back many centuries (e.g. to Thomas Aquinas), and was applied to the conduct of warfare. Over the centuries the doctrine has become an integral part of international law. In order for a war to be "just," it has to be fought over legitimate reasons (ius-ad-bellum) and it has to be fought within certain ethical limitations (ius-in-bello). The central criterion is the strict distinction between combatants and non-combatants: for legitimate warfare, civilian immunity has to be the key ethical principle. Deaths and injuries of the civilian population may only happen accidently (collateral damage); otherwise this would be a clear violation of the ius-in-bello criterion and could be classified as a war crime. Michael Walzer applies the just war doctrine and its ethical criteria to moral considerations regarding the use of violence by terrorists.[12] On that basis, the thesis of "new terrorism" assumes that organizations associated with "new terrorism" would not adhere to the ius-in-bello criterion. By contrast, "new terrorism" would make unlimited and uncontrolled use of violence with the objective of maximizing "lethal damage": "New terrorism" does not make any distinctions between civilians and soldiers and, accordingly, between soft and hard targets. This point becomes eminent in the empirical test.

There is a long list of proponents of the thesis of "new terrorism." Notable authors are for example Walter Laqueur, who perceives a "radical change of terrorism,"[13] Peter Neumann, who traces the beginning of "new terrorism" back to late modernity and the effects of globalization[14], or Steven Simon and Daniel Benjamin, who made a similar argument in their essay "America and the "New Terrorism," which was already published in 2000.[15] In this essay they pointed

---

[12] Michael Walzer, *Just and Unjust Wars. A Moral Argument with Historical Illustrations* (New York: Basic Books, [1977] 2000); Michael Walzer, "Terrorism and Just War," *Philosophia* 34, no. 1, 3-12.

[13] Walter Laqueur, *The New Terrorism – Fanatisms and the Arms of Mass Destruction* (Oxford: Oxford University Press, 1999), 4.

[14] Neumann (see note 4 above).

[15] Simon and Benjamin (see note 4 above).

out that unlimited violence, i.e. violence beyond any ethical limits, alongside religious motivation are the main characteristics of "new terrorism."

However, there is also a long list of researchers rejecting the thesis of "new terrorism." A starting point of these critiques can be seen in a debate in the journal "Survival" on the above-mentioned article by Simon and Benjamin.[16] Some scholars base their criticism on terminological arguments. Accordingly, the label "new" is appropriate only if it is applied to something entirely new, something that has never been there before.[17] Kurtulus, however, points out that this understanding of the adjective "new" would imply that "there can never be anything new in society since the 'new,' as a matter of fact, always has the relics of the old and the old always carries the seeds or the embryonic appearance of the new."[18] Other authors criticize the thesis of "new terrorism" in the context of the 9/11 attacks. For example, Copeland rejects the notion that the 9/11 attacks are the major "representative" or "symbolic" event constituting the "new terrorism." He argues that the underlying trends are older and in fact similar in nature to events that happened during the peak times of political terrorism in the 1970s and 1980s.[19] Tucker, Duyvesteyn and Field make the case that none of the features that are used to indicate the phenomenon of "new terrorism" are new at all: kidnappings, hijackings, bombings, attacks on civilians etc.[20] Therefore, as these authors argue, we should not speak of a radical change or a revolution of terrorism, but rather look at terrorism as an evolutionary development.[21] Spencer takes this criticism one step further when he does not only deem the distinction between "old" and "new terrorism" an artificial one but also warns that the terminology poses a threat. He thinks that it could allow governments "to justify a whole new set of rushed restrictive governmental counter-measures without these being democratically debated, publicly discussed, independently monitored or even necessary."[22]

---

[16] Olivier Roy, Bruce Hoffman, Steven Simon, and Daniel Benjamin, "America and the New Terrorism: An Exchange," *Survival* 42, no. 2 (2000): 156-172.

[17] For this argumentation see Isabelle Duyvesteyn, "How New is the New Terrorism?," *Studies in Conflict and Terrorism* 27, no. 5 (2004): 439-454, 150; Anthony Field, "The `New Terrorism´: Revolution or Evolution," *Political Studies Review* 7, no. 2 (2009): 195-207, 200.

[18] Kurtulus (see note 1 above), 481.

[19] Thomas Copeland, "Is the »New Terrorism« Really New? An Analysis of the New Paradigm for Terrorism," *The Journal of Conflict Studies*, 21, no. 2 (2001): 7-27.

[20] David Tucker, "What's New About the New Terrorism and How Dangerous Is It?," *Terrorism and Political Violence*, 13, no. 3 (2001): 1-14; Duyvesteyn (see note 17 above); Field (see note 17 above).

[21] Field (see note 17 above), 195.

[22] See Alexander Spencer, "Questioning the Concept of `New Terrorism´," *Peace, Conflict and Development* 8 (2006): 5. In addition, an exclusive focus on the new terrorism could lead to a neglect of other forms of terrorism: See Spencer, ibid.: 33.

Authors like Richard Jackson build on this criticism and advocate a critical turn in terrorism research.[23] They established a new discipline which is now commonly called Critical Terrorism Studies, in contrast to the so-called traditional terrorism research. Proponents of Critical Terrorism Studies argue that the one-sided focus on 9/11 has created a systematic bias of traditional terrorism research. Thus, Jackson is highly critical of the thesis of "new terrorism," because this thesis was drawn based on such systematic bias. Central to critical terrorism research is the desire for a paradigm shift, namely to dissociate the research agenda from the "9/11 focus." Our analysis partially follows this idea as we empirically test whether 9/11 can really be regarded as a starting point of a new and more brutal form of terrorism or whether this development – if it can be detected at all – already began in the decade prior to the 9/11 attacks.

This brief research overview shows that while during the last 15 years there has been an intense debate about "new terrorism," there still seems to be no consensus. What is obvious however, is that almost every author who supports the thesis of "new terrorism" tries to coin an own terminology for it; Laquer uses the term "postmodern terrorism,"[24] the French philosopher Glucksmann speaks of "mega terrorism,"[25] Carter of "catastrophic terrorism"[26] while Sprinzak applies the term "megalomaniac hyperterrorist."[27] There seems to be a second obvious point: Most of the research lacks systematically comparable, empirical evidence showing that the supposedly new, catastrophic (mega-)terrorism is more brutal than "old terrorism." This is where our article starts from.

How can Brutalization be Operationalized?

As indicated in the previous chapter, we do not advance a specific understanding of brutalization of terrorism, but we present different ways of looking at it and the respective empirical indicators. Each operationalization promotes different emphases. None of them is sufficient in

---

[23] Richard Jackson, "The Core Commitments of Critical Terrorism Studies," *European Political Science* 6, no. 3 (2007): 244-251.; Richard Jackson, "Knowledge, Power and Politics in the Study of Political Terrorism," in Richard Jackson, Marie Breen Smyth, and Jeroen Gunning (eds.), *Critical Terrorism Studies: A New Research Agenda* (London: Routledge Chapman & Hall: 2009), 66-84.

[24] Walter Laqueur, "Postmodern Terrorism," *Foreign Affairs* 75, no. 5 (1996): 24-36.

[25] Glucksmann (see note 11 above).

[26] Ashton Carter, John Deutch, and Philip Zeliko, "Catastrophic Terrorism. Tackling the New Danger," *Foreign* Affairs 77, no. 6 (1998): 80-94.

[27] Ehud Sprinzak, "The Lone Gunmen. The Global War on Terrorism Faces a New Brand of Enemy," *Foreign Policy* 127 (Nov./Dez. 2001): 72-73.

depicting the complete concept of brutalization, but taken together they paint a quite comprehensive picture. We distinguish between nine possible ways to operationalize brutalization:

1. more terrorist attacks;
2. more fatalities due to terrorist attacks;
3. more fatalities per terrorist attack;
4. more suicide attacks;
5. more terrorist attacks against soft targets;
6. more fatalities due to terrorist attacks against soft targets;
7. average number of fatalities due to terrorist attacks against soft targets;
8. more suicide attacks against soft targets;
9. more beheadings.

The first indicator is the absolute number of terrorist attacks. It understands brutalization from the perspective of a society's perceived anxiety level. An increasing number of attacks per year leads to a higher level of terroristic threat, which would as a consequence increase feelings of insecurity within the affected population. A high number of terrorist attacks therefore transforms citizens' perceptions of everyday life into a permanent state of fear, which can be regarded as a form of brutalization.

The second indicator is the number of people who are killed by terror attacks each year. Similar to the first indicator, it determines brutalization at the level of society in terms of a scenario of increasing threat. In this regard, it can be seen as brutalization if the hazard to fall victim to a deadly terror attack rises for each citizen alike to a notable magnitude.

The third indicator is the number of deaths per terror attack, which implies a qualitative change in terrorism. This indicator specifies to what extent terror attacks have become more brutal over the years, as they cause more deaths on average. In our analysis we only use data on fatalities. Although a growing number of (heavy) injuries would clearly speak for a brutalization of terrorism as well, we do not employ this indicator due to its poor reliability and the many data gaps the GTD exhibits for injuries caused by terrorist attacks.

The number of suicide attacks is the fourth indicator. It also stands for a qualitative change in terrorism that can be seen as a distinct form of brutalization. Suicide terrorists sacrifice their own lives for a "greater end." This indicator determines brutalization not only from a victim's perspective, but also from the point of view that suicide terrorists are used as tools and therefore exploited by terrorist organizations planning the suicide attacks.

The first four indicators presented above will then be analyzed again, focusing exclusively on the subsample of terrorist attacks against soft targets. The distinction between soft and hard targets goes back to the ius-in-bello criterion of the just war doctrine, which is based on the central proposition of civilian immunity (see above). We coded non-combatants, civilians, civilian facilities or infrastructure as soft targets, and the police, the military and other governmental institutions as hard targets. For all four indicators higher numbers related to soft targets in comparison to those related to hard targets would indicate a brutalization of terrorism. In other words: If terrorist organizations increasingly break the conventions of legitimate internal warfare, this would indicate a brutalization of terrorism. The seventh indicator, the average number of deaths by attacks against soft targets, can be seen as a measure of the terrorist "efficiency" pointing out the relationship between economic logic (maximum benefit with minimal effort) and the logic of unrestricted warfare (maximum lethality, especially among civilians).

The ninth and final indicator focuses on a specific form of killings that most people regard as particularly shocking and brutal: beheadings. Terrorists cutting the heads off their victims either when these are still alive or after the actual killing has already taken place (as an extreme form of mutilation and desecration of corpses) want two things: First, they want to present themselves as being highly decisive in pursuing their goals and second, the beheadings shall serve as deterrence and warning for their opponents. Furthermore, this form of willful homicide is often associated with a strict interpretation of Islamic law (e.g. death penalties in Saudi Arabia, which are also executed by decapitation in public places). Therefore, Islamist terrorists could use beheadings to show their religious resoluteness. Since 2014, when ISIS started to publish videos of decapitations, this form of terrorism has received a lot of media attention. With our dataset ending in 2011 we cannot depict these latest killings, yet we can show whether beheadings have become a popular instrument of terrorism only during the last decades (particularly within Islamist terrorist organizations) or whether decapitations have always been part of terrorist operations.

In the empirical part of the article, we investigate all nine indicators in detail, based on data from the Global Terrorism Database (see next section). Yet, one caveat has to be kept in mind: We can only analyze terrorist acts that are listed in the GTD. This also means that we can only observe what has really happened in terms of terrorism – i.e. actually executed terrorist attacks. It may be the case that increasing budgets for counter terrorism operations after 9/11 (in the U.S. but also in other countries) helped to prevent many terrorist attacks. These "attempted"

attacks would otherwise have contributed to an increased brutalization. Yet, it is extremely difficult to assess the effectiveness of counter terrorism operations. Increasing budgets alone cannot exactly tell how many lives these extra Dollars have saved. For the United States there are several authors questioning the very high government spending on anti-terrorism operations (about 16 billion US Dollars annually)[28] as being disproportionate with respect to the cost-benefit-ratio[29] or even not constructive at all. For example, Bjørn Lomberg brings forward the argument that an increase in defensive measures would only result in a shift in the terrorists' targets. His conclusion challenges the simple notion of "more money = higher security":

"Since 2001, the world has spent about US$70 billion on increased homeland security measures. Predictably, this has reduced the number of trans-national attacks by about 34 per cent. However, on average, terrorism has claimed 67 more deaths each year. The rise in the death toll has occurred because terrorists are responding rationally to the higher risks imposed by greater security measures."[30]

Not knowing to what degree counter-terrorism measures actually prevent terrorist attacks or if they perhaps even provoke more brutal terrorist acts against less protected targets, and also lacking comparable data on the amount and effectiveness of counter terrorism measures – particularly when leaving the U.S. and Western context – we believe that the best we can do is to focus on those terrorist attacks that actually happened and depict this empirical reality as accurately as possible.[31]

The Global Terrorism Database (GTD)

The GTD is appropriate for our analysis because of its clear definition of terrorism and its structure that has several advantages for our research question. Listing more than 100,000 terrorist incidents since 1970, it is the most comprehensive data set on domestic and international

[28] DeSilver, Drew (2013): U.S. spends over $16 billion annually on counter-terrorism. http://www.pewresearch.org/fact-tank/2013/09/11/u-s-spends-over-16-billion-annually-on-counter-terrorism/, September 11, 2013, date downloaded: 05/19/2015.

[29] John Mueller and Mark G. Stewart, "Evaluating Counterterrorism Spending," *Journal of Economic Perspectives* 28, no. 3 (2014): 237-248.

[30] Bjørn Lomberg, "Is counterterrorism good value for money?" NATO Review, April 2008 edition, http://www.nato.int/docu/review/2008/04/ap_cost/en/index.htm, date downloaded: 05/19/2015.

[31] This does not mean that the counterfactual question of how brutal terrorism would be if there had not been any increase in the counter terrorism budgets, does not provide a relevant research question in its own right. Indeed, there is a lack of empirical work on how effective anti-terrorism measures actually are in reality. This is a question further research should definitely tackle.

terrorism. Table 1 presents the advantages of the GTD – with regard to questions of "new terrorism" – and compares it to 16 alternative datasets on terrorism. The GTD data set proves to be the most suitable; all the others are struggling with specific shortcomings. For example, the TWEED data set, created by Engene, only includes domestic terrorism in 18 Western European countries until 2004.[32] Thus, the geographical as well as the temporal focus is too narrow for testing the brutalization thesis. The RAND Database of Worldwide Terrorism Incidents (RDWTI) does not provide the same amount of information as the GTD either. The number of attacks listed in it (36,000 between 1968 and 2009) shows that the RDWTI does not fulfill their self-proclaimed standard of being "the gold standard for comprehensive information on international and domestic terrorism."[33] This is the case because the RDWTI records domestic attacks only since 1998. Before that point it only covers international acts of terrorism. The last data included in the RDWTI comes from 2009, which is another disadvantage for our analysis of "new terrorism."

Nevertheless, there are also three problems with the GTD that should be mentioned:

1) The GTD codes all terrorist attacks as separate events if they happen either at different points in time or at different places. In general terms, this definition is useful, but it is problematic for series of attacks. The GTD codes individual elements of such a series of attacks separately (e.g. the four planes hijacked on 9/11) which makes no sense regarding our research question. In order to avoid a distorting effect, we merged all incidents that were part of a series of attacks into a single case (based on the multiple incidents variable we did this using further information from the GTD concerning location, terrorist group, target and timing of the attack).
2) The GTD data set does not contain reliable information for the year 1993. The data is only partially available and it is unclear whether certain types of attacks or attacks in specific regions of the world are missing systematically. The GTD itself refers to aggregated data for 1993 which should be used as an alternative.[34] We refer to this aggregated data where it is possible, e.g. for the total number of attacks and the total number of fatalities (also separated by country). For all other cases, e.g. the number of suicide

[32] Jan Oskar Engene, "Five Decades of Terrorism in Europe: The TWEED Dataset," *Journal of Peace Research* 44, no. 1 (2007): 109-121.

[33] RAND (Research And Development Corporation) 2012, "RAND Database of Worldwide Terrorism Incidents," May 11, 2013, http://www.rand.org/nsrd/projects/terrorism-incidents.html.

[34] GTD (Global Terrorism Database) 2013 (see note 7 above).

attacks which is not listed separately in the aggregated data, we impute the data based on the means of the years before and after 1993.

3) The database also includes attacks which cannot be termed as terrorist attacks without any doubt, because there is a gray zone between crime and terrorism. Overall, this applies to 5.76 percent of the cases. We decided to code all these incidents as acts of terrorism, as the overwhelming part of these doubtful cases (95.4 percent) took place after 1998. By doing so, we include all attacks that are of potential terrorist nature particularly for the period after 2001 which is most relevant for our research question. Hence, we put the brutalization thesis to a "tough test" under the conditions of a most-likely-design: If, despite the comprehensive selection of cases, no evidence for brutalization can be found, this would be a significant finding.[35]

The GTD contains more than 75 variables describing individual acts of terrorism. They provide information about the date/time and site of the attack as well as information about the terrorist organization that carried it out, the type of attack (e.g. bomb attack or hostage-taking), the tactics/weapons that were used and the damage/victims. For our analysis the following variables are the most relevant ones:

- ***nkill***: indicates the number of confirmed deaths of a terrorist act; the attackers that were killed are counted as well
- ***suicide***: indicates if it was a suicide attack
- ***targtype1***: indicates the primary attack target; based on the 22 categories that are listed for this variable we draw our distinction between soft and hard targets
- ***multiple:*** indicates whether the attack was part of a larger series of attacks; for the empirical test of the brutalization-thesis we summarize larger series to one incident (serial encoding); the original GTD-coding is only used for comparison purposes
- ***year:*** indicates the year in which the attack took place, or in the case of a larger series, the year of the first attack
- ***region***: indicates the region where the attack took place [36]
- ***country***: indicates the country where the attack took place

[35] The GTD also lists a very specific category of terrorist attacks affecting almost exclusively the United States. These are attacks on abortion clinics. We subsume the 251 cases in this category (0.2 percent of all cases) to soft targets.

[36] The data set distinguishes between eleven world regions: Western Europe, Eastern Europe, North America, Central America and the Caribbean, South America, Australia and Oceania, Russia and CIS, Central Asia, East Asia, South Asia, Southeast Asia, Middle East and North Africa, Sub-Saharan Africa.

However, the GTD variables make no distinction between soft and hard targets. As explained above, this distinction is central to our analysis of the brutalization thesis. Based on the information from ***targtype1,*** we therefore constructed a dummy distinguishing between soft and hard targets.

Table 1: Comparison of data sets on terrorism

Data base	Access	Period of time	Kind of data	Unit of analyses	Website
Global Terrorism Database (GTD)	Free, publicly available	1970-2011 (ongoing)	Domestic and International Terrorism	Terrorist attack	www.start.umd.edu/gtd/
Worldwide Incidents Tracking System (WITS)	Free, publicly available	2004-09 (ongoing)	Domestic and International Terrorism	Terrorist attack	http://wits.nctc.gov/ (currently not available)
International Terrorism: Attributes of Terrorist Events (ITERATE)	Commercial (50$ per year of data)	1968-2008 (ongoing)	Transnational and International Terrorism	Terrorist attack	http://www.vinyardsoftware.com/home.html
MIPT Terrorism Knowledge Base	Free, publicly available	1968-2008 (Ended March 2008)	Domestic and International Terrorism	Terrorist attack	www.mipt.org (data base is no longer online)
RAND Worldwide Terrorism Incidents Database (RWTID)	Free, publicly available	1968-2009 (ongoing)	Domestic Terrorism (since 1998) and International Terrorism (since 1968)	Terrorist attack	http://www.rand.org/nsrd/projects/terrorism-incidents.html
Country Reports on Terrorism (United States Department of State)	Free, publicly available	2004-today	Domestic and International Terrorism; no data set but an annual report	Terrorist attack	http://www.state.gov/j/ct/rls/crt/
Terrorism in Western Europe (TWEED)	Free, publicly available	1950-2008	Domestic Terrorism in 18 West European countries	Terrorist attack	http://folk.uib.no/sspje/tweed.htm
South Asia Terrorism Portal (SATP)	Free, publicly available	Different periods for every country	Domestic and International Terrorism in South-Asia	Terrorist attack	http://www.satp.org/
The International Policy Institute for Counter-Terrorism (ICT) – Terrorist Incident Database	Unclear	1975-2008	Mainly Attacks in the Middle East	Terrorist attack	www.ict.org.il/
Political Terror Scale (PTS)	Free, publicly available	1976-2007	Global	Political violence and terror (measured annually by a Five-Point-Scale)	www.politicalterrorscale.org
The American Terrorism Study, 1980–2002	Free, publicly available	1980-2002	Investigations on domestic security and terrorism in the US	Data set built on arraignments	http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/4639
The European Union Terrorism Situation and Trend Report (TE-SAT)	Free, publicly available	Since 2006	Terrorist Attacks in the EU; no data set but an annual report	Terrorist attack	https://www.europol.europa.eu/latest_publications/37
Global Pathfinder	Accessible with password	Unclear	Terrorist Attacks, mainly in the Asia-Pacific-Region	Terrorist attack	http://www.pvtr.org/ICPVTR/index.php?option=com_content&view=article&id=277&Itemid=113
The Institute for the Study of Violent Groups (ISVG) Database	Accessible with password (without password only 200 cases can be selected)	Since 2008	Information about Extremism, Terrorism and transnational Crime	Unclear	http://vkb.isvg.org/Special:isvgsearch
The Monterey WMD Terrorism Database	Accessible only for administration staff and soldiers of the US	1900-today	Attacks that include weapons of mass destruction (ABC-weapons)	Attack	http://wmddb.miis.edu/
Iraq Body Count	Free, publicly available	2003-today	Civil deaths in attacks in Iraq after the invasion in 2003	Terrorist attacks against soft targets	http://www.iraqbodycount.org/

Table based on Bowie and Schmid, including own amendments and updates. [37] Grey fields indicate problems for the test of the brutalization thesis.

[37] Neil G. Bowie and Alex P. Schmid, "Databases on Terrorism," in Alex P. Schmid (ed.), *The Routledge Handbook of Terrorism Research* (London: Routledge, 2011), 294-340.

Empirical Test of the Brutalization Thesis

The following sections separately present the nine indicators for the period from 1970 to 2011. If the brutalization thesis is correct, there should be a clear shift towards a higher level of brutalization starting either during the early 1990s or with the 9/11 attacks. In each section we will investigate to what extent empirical data confirms one of these two dates as being the starting point of a brutalization of terrorism.

We examine all indicators first on a global scale and then compare them by breaking the analysis down to world regions.

The Number of Terrorist Attacks

Regardless whether we look at raw numbers or numbers standardized to the world population that has grown significantly since 1970, a clear picture emerges (see fig. 1).[38] The number of attacks per year increased steadily since the late 1970s until it reached its peak in 1992. Afterwards, the number of attacks decreased substantively until it reached a level comparable to the 1970s for the late 1990s and early 2000s. However, since 2005 there was a clear rise in the attack numbers so that by 2011 the brutality level of the early 1990s has been reached again.

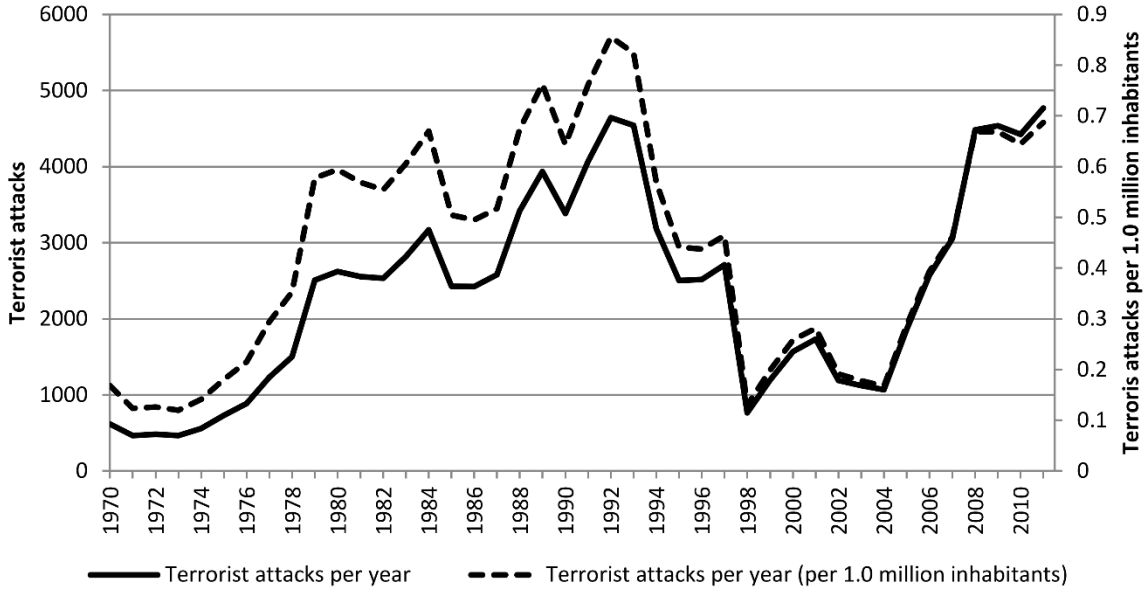
Turning to the number of terrorist attacks broken down by world region (fig. 2), certain waves of terrorist activities can be detected. Since the 1970s, different regions had peaks (and lows) of terrorist attacks. In the 1970s, the graph shows that the vast majority of attacks happened in Western Europe and North America. By the mid-1970s, the number of attacks in Central and (a bit later) in South America increased significantly. Around 1982, about 65 percent of all attacks worldwide happened in these regions. The shift of terrorist activities to other world regions becomes obvious by the fact that until the mid-1980s, 80 percent of the attacks took place in Europe or the Americas. Since 2005, their combined share dropped well below 10 percent. The two regions with the greatest increase since 1980 are South Asia (that is India, Pakistan and Afghanistan) as well as the Middle East and North Africa. Sub-Saharan Africa and Southeast Asia also experienced a slight increase, yet to a much smaller extent than the two regions previously mentioned.

---

[38] In general, we use non-standardized numbers for the amount of attacks, deaths and suicide-attacks in the remainder of the article. Whenever it makes particularly sense, we standardize on yearly population data by the World Bank (http://data.worldbank.org/indicator/SP.POP.TOTL).

At first sight, data on the total number of terrorist attacks showing an increase from 2001 to 2011 seems to indicate a certain brutalization. However, compared to the early 1990s when the number of attacks was equally high as in the years after 2008, speaking of a significant brutalization that started either in the early 1990s or after 9/11 cannot be justified. The increased numbers within certain regions (or countries; see table 2[39]) can also not support the brutalization thesis. Standardizing on a country's population shows that, for example, El Salvador had more than twice as many attacks per capita per year during the 1980s as Iraq during its peak from 2008 to 2011.

Figure 1: Number of terrorist attacks per year



[39] During the last years, nearly half of all attacks worldwide happened in just three countries: Afghanistan, Iraq and Pakistan. Yet, until the 1990s, Columbia and El Salvador that have been selected as examples for Central and South American countries as well as Northern Ireland made up a significant share of all terrorist attacks.

Figure 2: Percentage of terrorist attacks by world region

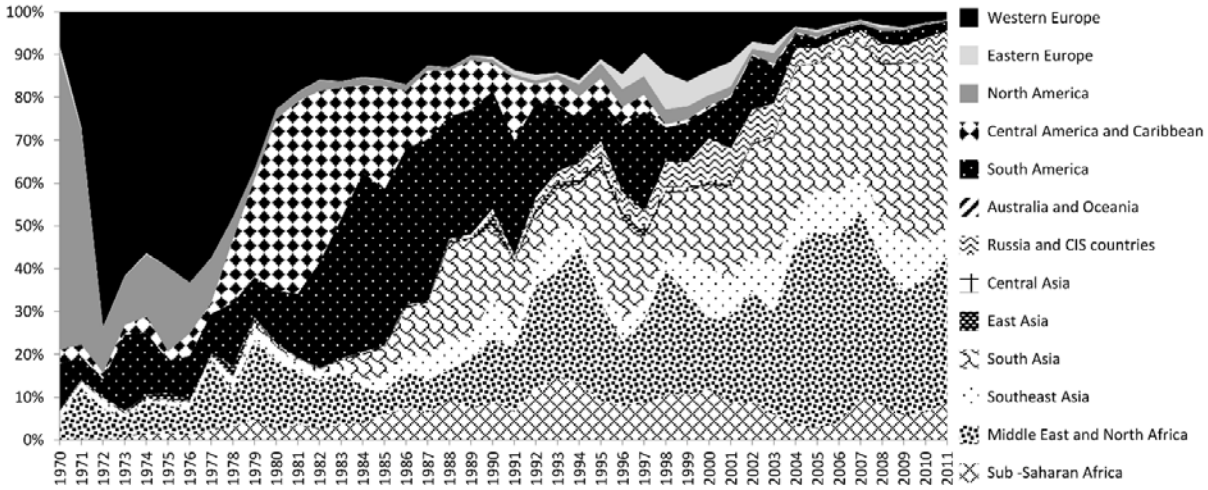


Table 2: Attacks in Afghanistan, Iraq, Pakistan, Columbia, El Salvador and Northern Ireland

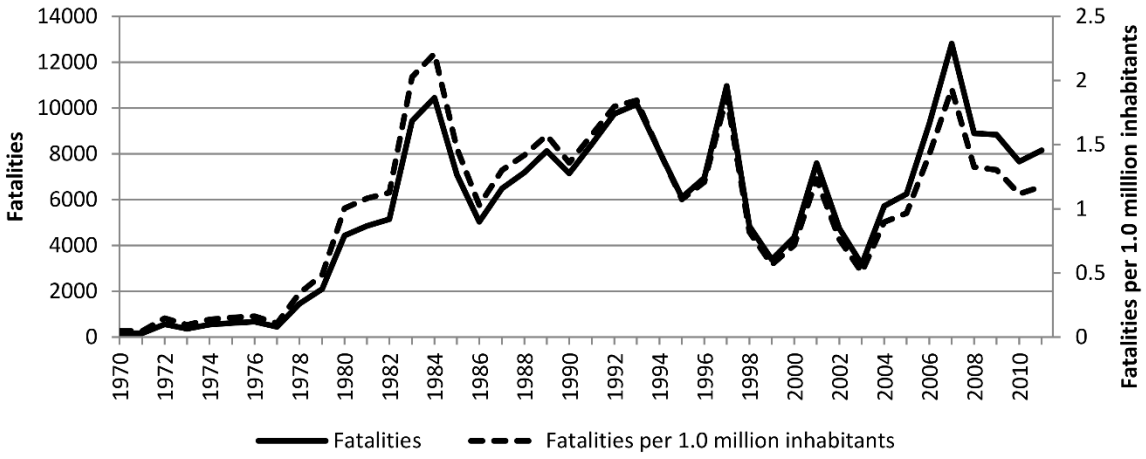
	1970s	1980s	1990s	2000-2003	2004-2007	2008-2011
Afghanistan	4 (0.04) *0.03*	22 (0.08) *0.20*	114 (0.38) *0.79*	158 (2.81) *1.75*	827 (9.67) *8.08*	1828 (10.04) *16.30*
Iraq	6 (0.06) *0.05*	30 (0.11) *0.20*	140 (0.47) *0.70*	96 (1.71) *0.94*	2681 (31.35) *23.94*	4508 (24.75) *36.82*
Pakistan	17 (0.18) *0.02*	190 (0.67) *0.19*	1188 (3.97) *0.96*	158 (2.81) *0.27*	542 (6.34) *0.84*	2769 (15.20) *4.02*
Columbia	415 (4.40) *1.62*	2726 (9.57) *9.01*	2506 (8.37) *7.02*	503 (8.96) *3.08*	136 (1.59) *0.78*	470 (2.58) *2.55*
El Salvador	405 (4.29) *8.92*	3494 (12.27) *71.71*	568 (1.90) *10.43*	0 (0) *0*	0 (0) *0*	0 (0) *0*
Northern Ireland	1432 (15.17) *93.64*	1141 (4.01) *73.04*	1016 (3.39) *62.20*	153 (2.72) *22.63*	32 (0.37) *4.60*	143 (0.79) *19.84*
total	9441	28481	29927	5615	8552	18213

In brackets: percent of total, in italics: number of attacks per year standardized by population in millions

The Number of Fatalities due to Terrorist Attacks

The second indicator gives a rather incoherent picture (see fig 3). Starting at levels below 1000 deaths in the 1970s, the number of fatalities due to terrorist attacks increased during the early 1980s to more than 10,000 persons killed per year. The following years saw relatively small variations on a generally high level until 1998. In that year, there had been less than 5,000 fatalities for the first time since 1981. With the exception of the 9/11 attacks, this period of relatively few victims continued until 2003. Since then, the numbers increased and peaked in 2007. Based on this data, we can state that although the level of brutality has risen since 2001, the 2000s have not become significantly more brutal compared to the 1980s and 1990s. This becomes even more evident by analyzing the standardized numbers: During the 1980s peak, more than two persons out of one million citizens were killed by terrorist attacks. During the latest peak period (2003-10), this level of brutality has not been reached any more.

Figure 3: Number of fatalities due to terrorist attacks per year



The analysis of fatalities by world regions (see fig. 4) confirms to a large extent the results from the first indicator (number of attacks). Clearly visible are the 9/11 attacks as a grey spike in 2001, accounting for nearly 50 percent of all fatalities due to terrorism in that year. Until the mid-1970s, most casualties happened in Western Europe. Even though their absolute numbers did not vary much during the following 15 years – as shown in figure 5 – the relative share of Western Europe had already been very low in the 1980s. Both figures also show the shift of the core area of terrorist activity from Central and South America (1970s and 1980s) to sub-Saharan Africa (1990s) and finally to South Asia, the Middle East and North Africa, where especially in the years after 9/11, most persons fell victim to terrorism. Overall, on a global scale, this indicator does not confirm the brutalization thesis – neither starting in the early 1990s nor at 9/11. Nevertheless, an increased brutality can be observed in some world regions during the last years, yet it does not exceed levels of earlier decades. This finding stays robust when we take an exemplary look at the six countries listed in table 3. Although the number of deaths per year standardized on a country's population indicates a significant brutalization in Afghanistan, Iraq and Pakistan since the year 2000, their top-fatality levels are not much higher (or even lower in some cases) than in Columbia, El Salvador or Northern Ireland during their peak terrorism periods respectively.

Figure 4: Percentage of fatalities due to terrorist attacks by world region

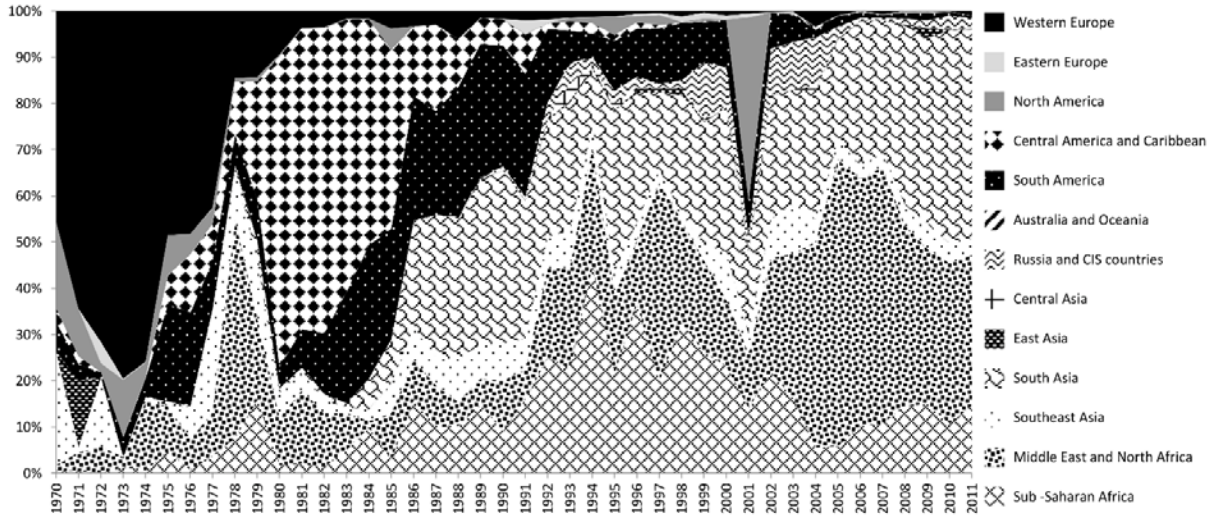


Figure 5: Absolute number of fatalities due to terrorist attacks by world region

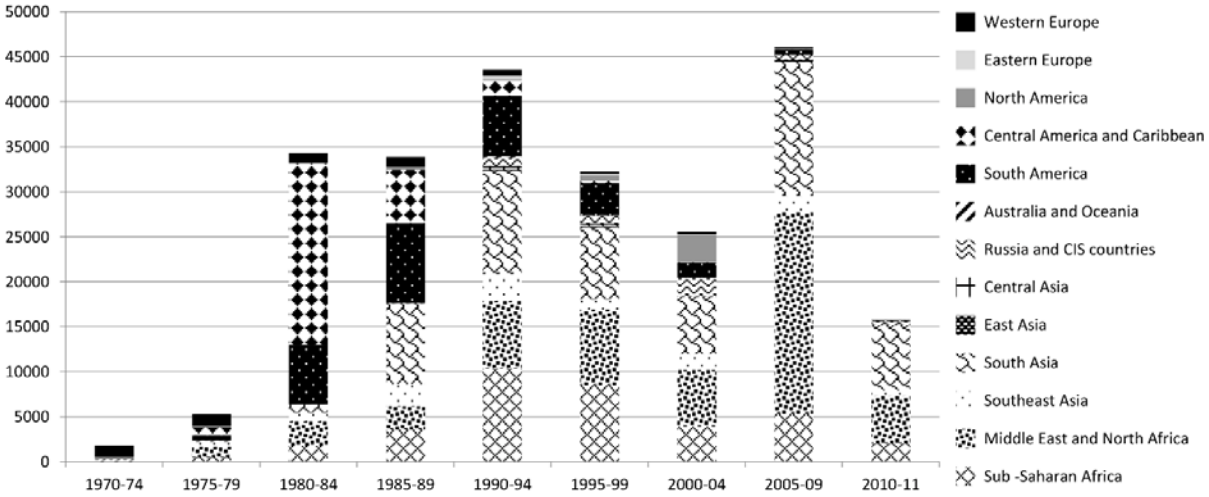


Table 3: Fatalities due to terrorism in Afghanistan, Iraq, Pakistan, Columbia, El Salvador und Northern Ireland

	1970s	1980s	1990s	2000-2003	2004-2007	2008-2011
Afghanistan	53 (0.74) *0.40*	138 (0.20) *1.25*	304 (0.40) *2.02*	447 (2.25) *5.07*	2561 (7.51) *24.95*	4712 (14.04) *41.87*
Iraq	13 (0.18) *0.11*	148 (0.22) *0.99*	530 (0.70) *2.62*	376 (1.89) *3.64*	16627 (48.78) *148.49*	9337 (27.83) *76.76*
Pakistan	14 (0.20) *0.02*	480 (0.70) *0.48*	3006 (3.96) *2.39*	449 (2.26) *0.76*	2186 (6.41) *3.38*	5962 (17.77) *8.67*
Columbia	283 (3.97) *1.09*	6022 (8.83) *19.82*	5762 (7.60) *15.95*	1510 (7.60) *9.28*	364 (1.07) *2.10*	291 (0.87) *1.58*
El Salvador	328 (4.61) *7.18*	10930 (16.02) *225.36*	827 (1.09) *15.25*	0 (0) *0*	0 (0) *0*	0 (0) *0*
Northern Ireland	1675 (23.52) *109.52*	750 (1.10) *48.01*	480 (0.63) *29.45*	19 (0.10) *2.81*	4 (0.01) *0.57*	4 (0.01) *0.56*
Total	7122	68230	75821	19878	34086	33551

In brackets: percent of total, in italics: number of attacks per year, standardized by population in millions

The Average Number of Fatalities per Terrorist Attack

The third indicator understands brutalization in terms of the "quality" of the terrorist attacks. More specifically, this indicator measures the intensity of attacks, i.e. the annual average number of fatalities per terrorist attack. Additionally to these means, figure 6 presents the corresponding standard deviations. Due to their magnitude, they had to be integrated into the diagram using a coarser scale.[40]

The average number of fatalities per attack confirms the brutalization thesis at least to some extent. Between 1997 and 2007, this number was on average higher than in the decades before. Yet, the graph does not show a steady increase, but several distinct peaks in 1998, 2001, 2004 and 2007. Since 2008, the indicator even ranges below the level of the 1980s and 1990s. The standard deviations show large deviations already since the beginning of the 1990s. This means that comparatively high average numbers of fatalities cannot only be attributed to single attacks with extremely high death tolls since 9/11. Accordingly this supports the idea that the brutalization of terrorism has already started during the 1990s, and not with the 9/11 attacks. Analyzing this indicator by world regions shows the striking result that since the early 1990s, the attacks in Sub-Saharan Africa on average have led to significantly higher death tolls than in any other of the two most terror struck regions Middle East & North Africa and South Asia (see fig. 7). Considering the different percentiles is also revealing as they indicate if there is an increase in the number of attacks with a very large number of fatalities (see fig. 8). The figure shows that in the 1970s, 99% of the attacks claimed less than ten deaths (i.e. one percent of attacks caused ten or more deaths), whereas in the periods 1982-1985, 1993-1999 and 2002-2007, this value rose to more than 30.[41] Yet, particularly compared to the 1980s peak period, a clear and stable brutalization in the 1990s, or since the 9/11 attacks cannot be derived from these curves.

[40] Nevertheless, the means and standard deviations have to be interpreted cautiously because of the strong right skewed distribution of terrorist attacks: there are a lot of attacks with none or few casualties and only very few with many.

[41] The extremely high value in 1998 is due to some very bloody attacks in Burundi, Algeria and Colombia.

Figure 6: Fatalities per terrorist attack (worldwide average and standard deviation)

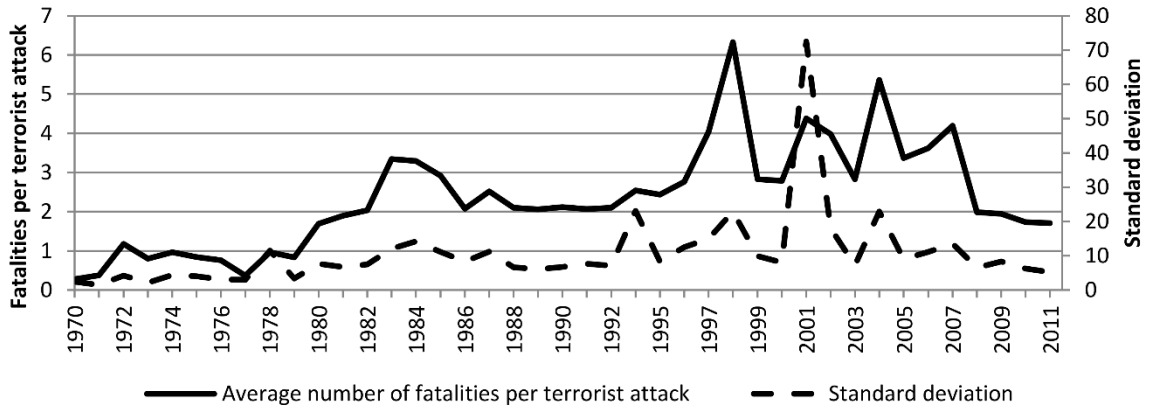


Figure 7: Fatalities per terrorist attack (averages for three world regions)

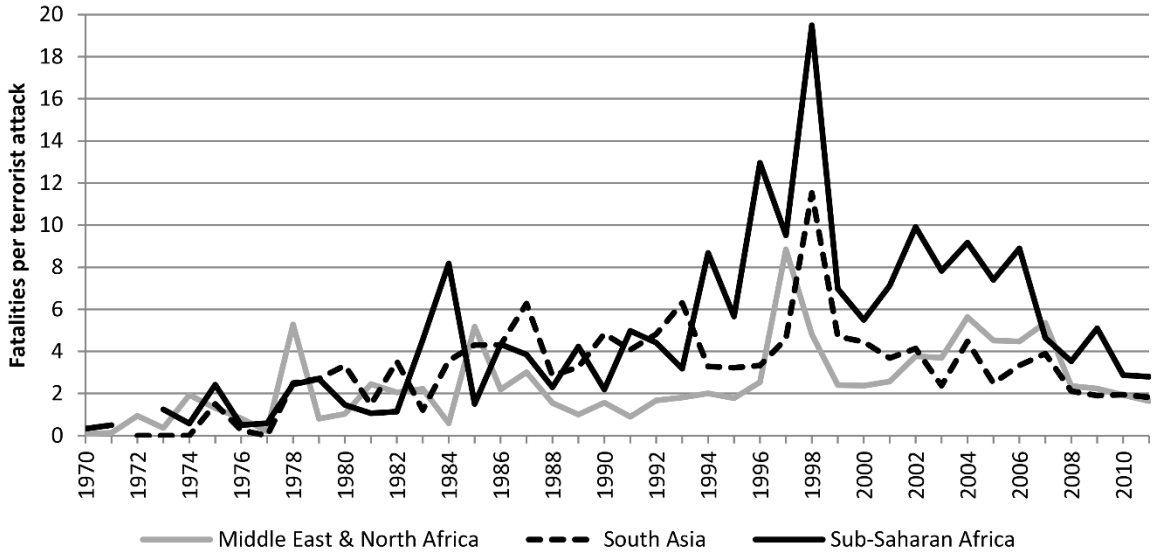
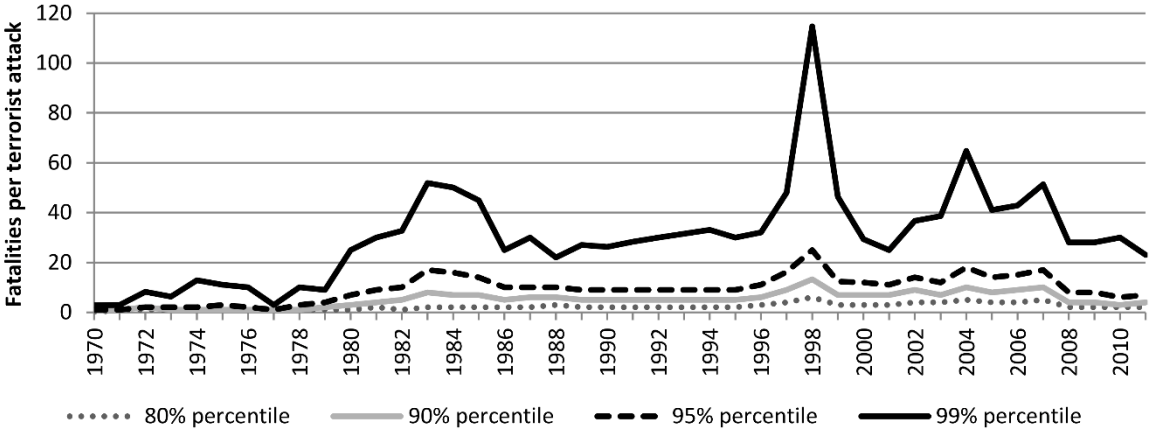


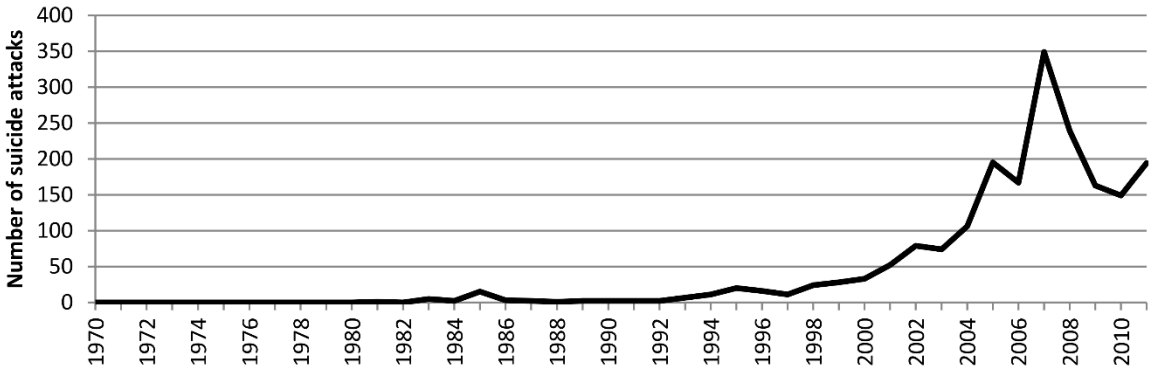
Figure 8: Fatalities per terrorist attack (80%-, 90%-, 95%- and 99%- percentiles world-wide)



The Number of Suicide Attacks

The fourth indicator of brutalization is the number of suicide attacks. According to GTD data, this form of terrorism was first used in an attack by Hezbollah against an U.S. base in Beirut in 1983, in which two trucks loaded with explosives and steered by suicide bombers killed 241 U.S. soldiers and 58 French paratroopers.[42] In the late 1980s and early 1990s, the number of suicide bombings almost fell to zero (see fig. 9). Only since 1994 a slight increase in the number of attacks can be recognized – nevertheless still at a fairly low level. This changed after 9/11 and the U.S. invasion of Afghanistan. The number of suicide bombings more than quadrupled from 2003 to 2007. But since then it has decreased again. Analyzing the number of suicide attacks by world regions shows that suicide attacks are a phenomenon that predominantly affected the Middle East and South Asia (see fig. 10): Iraq, Afghanistan and, most recently, Pakistan show the highest numbers (see table 3). The number of suicide attacks can therefore be seen as a sign of brutalization with the starting point 9/11, particularly in those regions.

Figure 9: Number of suicide attacks per year (worldwide)



[42] From the historically early occurrence and prevalence of suicide attacks in the Islamic cultural area, however, it should not be inferred that this is a purely Islamist phenomenon. A remarkable – albeit little known – factor is the fact that the clearly "secular" IRA perpetrated attacks that are very similar to today's suicide bombings, for example in Iraq. These attacks, however, were not classified as suicide bombings or martyrdom operations but as proxy bombs. See also John Horgan and Mia Bloom, "Missing Their Mark. The IRA Proxy Bomb Campaign of 1990," (Paper Presented at the Annual Meeting of the ISA's 49th Annual Convention: `Bridging Multiple Divide´, San Francisco, CA, March 26, 2008), http://www.allacademic.com/meta/p252406_index.html; Ed Moloney, *A Secret History of the IRA* (New York: W.W.Norton, 2002). The first attack of this kind was already carried out in 1975 – and thus before the foundation of Hamas and Hezbollah. The IRA took the catholic chef Patrick Gillespie hostage and forced him to drive a truck, loaded with 450 kg of explosives, into a checkpoint of the British army. When Gillespie passed the Checkpoint, the explosive was detonated by remote ignition. Gillespie and five British soldiers were killed. Pape also emphasizes that suicide terrorism is not limited to Islamic fundamentalism. The world's leading organization in terms of suicide bombings is the LTTE (Liberation Tigers of Tamil Eelam), see Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House Trade Paperbacks, 2005), 260.

Figure 10: Number of suicide attacks per year by region

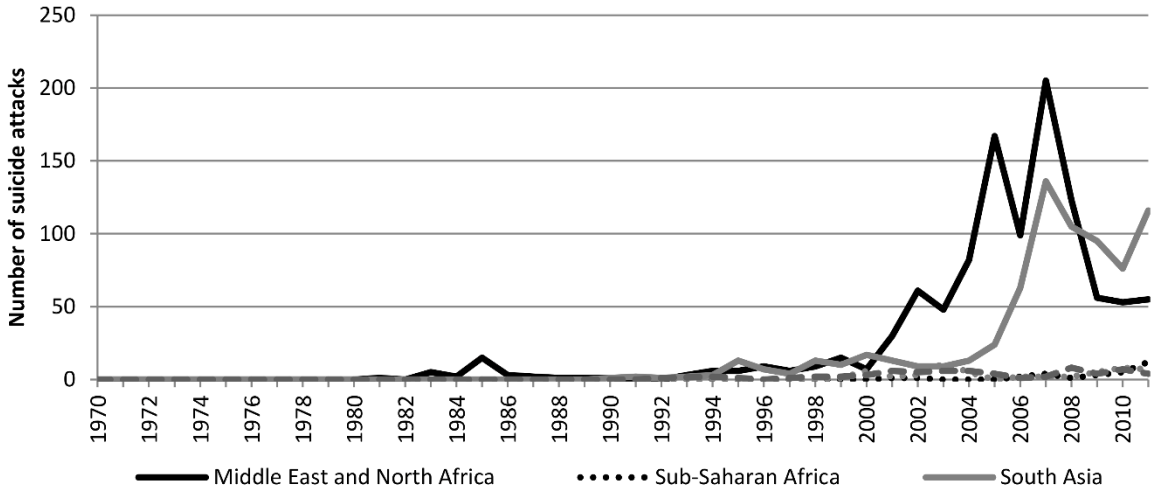


Table 4: Suicide attacks in Afghanistan, Iraq and Pakistan (in brackets in percentage of total)

	1970s	1980s	1990s	2000-2003	2004-2007	2008-2011
Afghanistan	0 (-)	0 (0)	0 (0)	5 (2,10)	139 (17,01)	217 (29,12)
Iraq	0 (-)	0 (0)	3(2,59)	12 (5,04)	502 (61,44)	232 (31,14)
Pakistan	0 (-)	0 (0)	5 (4,31)	6 (2,52)	71 (8,69)	147 (19,73)
total	0	31	116	238	817	745

The Number of Terrorist Attacks against Soft Targets

All previous indicators did not differentiate the terrorist attacks according to their targets. In the present and the following three sections, this shall be done by distinguishing between soft and hard targets. Figure 11 shows that throughout the whole period of investigation, there have been more attacks against soft than against hard targets. For some periods of time, the difference is not very large, but from 1996 to 2002 and from 2008 to 2010, about 60 to 70 percent of all terrorist attacks were directed against soft targets (see fig. 12). Despite these two periods, no significant increase in attacks against soft targets can be found: Firstly, there had already been periods during the 1970s in which attacks against soft targets predominated. Secondly, particularly between 2003 and 2005, there were almost as many attacks against hard targets as against soft targets. This indicator therefore does not allow speaking of a "paradigm shift" in the targets of terrorism since the early 1990s or 9/11 which would make the case for the brutalization thesis.[43]

[43] Terrorist attacks against other terrorists, who in some ways could be considered as even harder targets than the police or the military, which were coded as classic hard targets, account for a maximum of 2 percent of all attacks. Its share also varies only very slightly over time. The proportion of attacks for which it was not possible to decide

Figure 11: Number of terrorist attacks against soft and hard targets

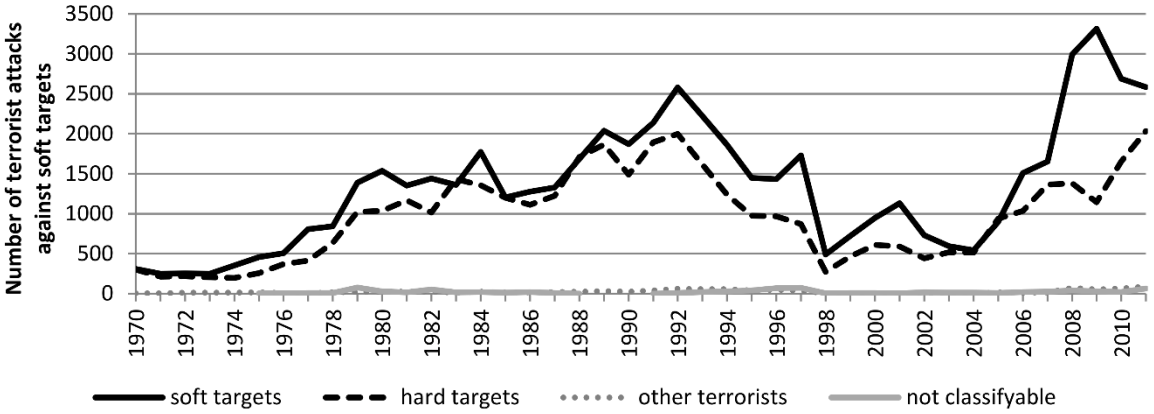
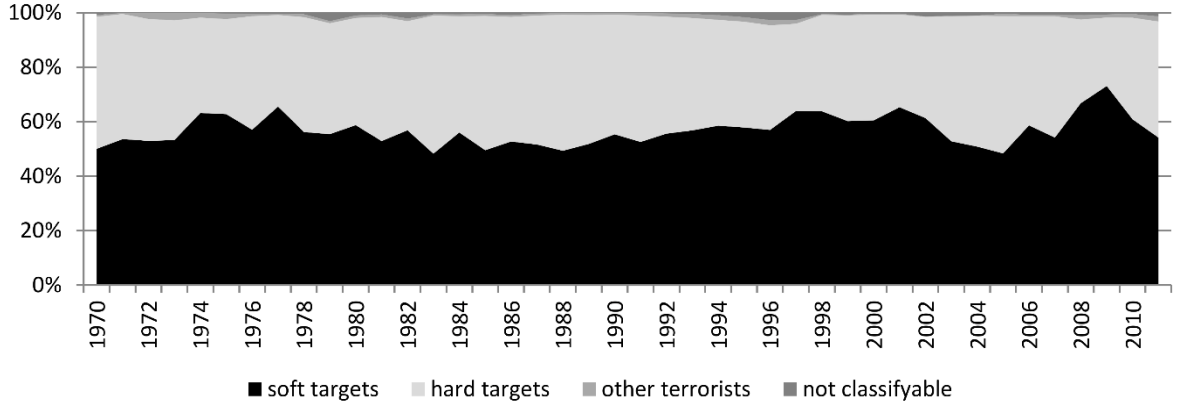


Figure 12: Percentages of terrorist attacks against soft and hard targets



The Number of Fatalities due to Terrorist Attacks against Soft Targets

The sixth indicator of brutalization is the death toll of attacks against soft targets compared to hard targets. Figure 13 shows that only at the end of the 1980s and at the beginning of the 1990s, attacks on hard targets presented the modal category for the number of fatalities. Since the mid-1990s, the death toll of attacks against soft targets is on average higher than in the decades before. Particularly three peaks stand out: 1997, 2001 and 2006-2009. Although the general level of brutality according to this indicator speaks in favor of a brutalization starting in the mid-1990s, the three peaks should be treated with caution in this regard. They can be explained by the 9/11 attacks for the year 2001and the war in Afghanistan for the period from 2006 to 2009. The explanation for the peak in 1997 is more complex: The high death toll from attacks

- according to GTD data - if they were aimed against hard or soft targets, is also relatively constant over the entire period of observation and sufficiently small, so that we expect no systematic bias.

against soft targets was caused by multiple local conflict constellations; in particular, the massacres in Algeria with 4112 civil deaths should be emphasized. These massacres reached their climax in 1997. Additionally, in Columbia, Rwanda, India and Mexico, fatalities of attacks against soft targets were significantly above the numbers of the years before and after. 9/11 was clearly a terrorist attack but also an extreme outlier that cannot be used to approve a general trend in the brutalization. The two other peaks can be largely traced back to situations of war (the U.S. war on terror in Afghanistan and the civil war in Algeria in the mid-1990s), where it is much more difficult to distinguish between fatalities due to warfare and those due to terrorism. Taken these points together, the number of fatalities due to terrorist attacks against soft targets shows signs of a brutalization that started already in the 1990s, but the nature of the peaks as well as the two significant lows (1998-2000 and 2002-2005) qualify this finding.

Considering the percentages of fatalities due to terrorist attacks by target type (figure 14), we see a continuous increase in attacks against soft targets from the early 1980s onwards. Thus, this trend has started before the two potential starting points that we test; and the ratio between soft and hard targets has even declined to much lower levels since 9/11. Therefore, comparing the 1990s and 2000s to the 1970s when the level of brutality according to this indicator was nearly the same, this indicator, too, does not show a significant change that could support the brutalization thesis.

Figure 13: Fatalities due to terrorist attacks against soft and hard targets

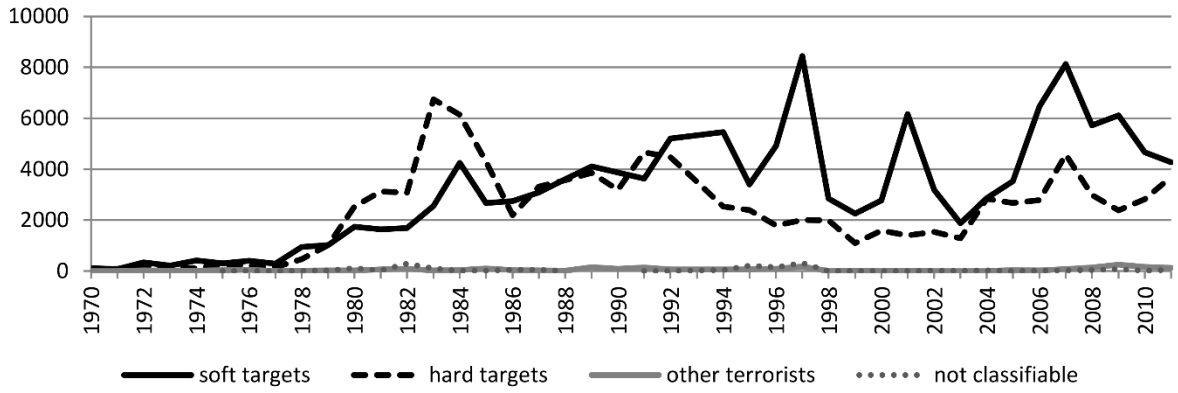
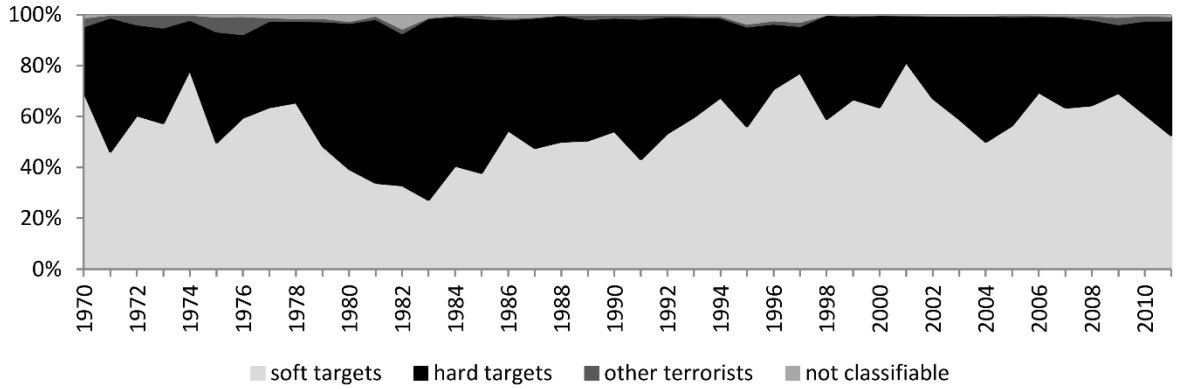


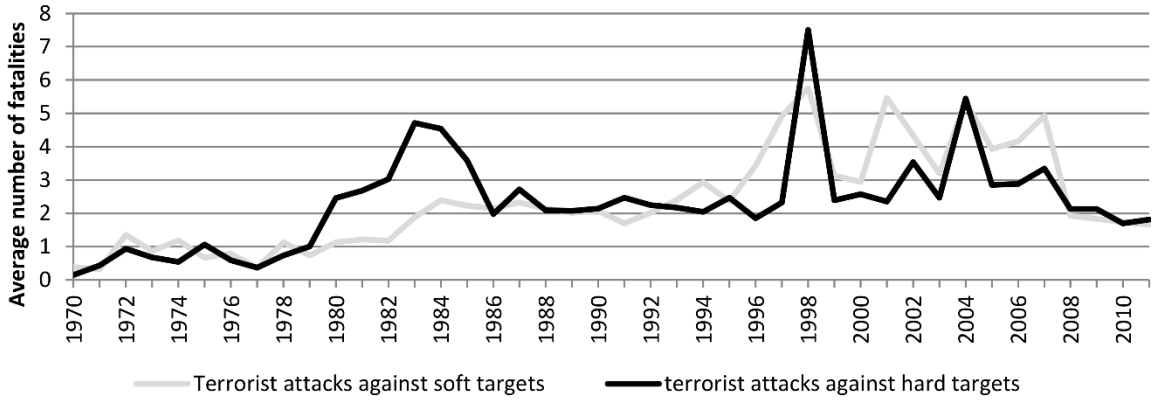
Figure 14: Percentages of fatalities due to terrorist attacks against soft and hard targets



The average Number of Fatalities per Terrorist Attack against Soft Targets

The seventh indicator focuses on the average number of fatalities due to terrorist attacks against soft targets; it also analyzes whether this average is significantly higher than the one for hard targets. In other words, this indicator measures the "efficiency" of the attacks: Terrorist efficiency is "brutal," if it leads to more deaths of targets that cannot be justified by the conventions of international law. Figure 15 shows that the average death toll, resulting from attacks against soft targets, had already reached its maximum in 1998 (and then again in 2001, 2004 and 2007). Again the three special cases 9/11, war on terror in Afghanistan and the Algerian civil war somehow drive these results. More recently, the average death toll significantly declined for attacks against soft and hard targets alike. As a result, this indicator confirms the brutalization thesis with the starting point in the 1990s only to some extent. For the first time since the 1970s, the average number of fatalities due to attacks against soft targets was higher than the one against hard targets in 1994. The years after 9/11 instead show no further increase in this form of brutal efficiency.

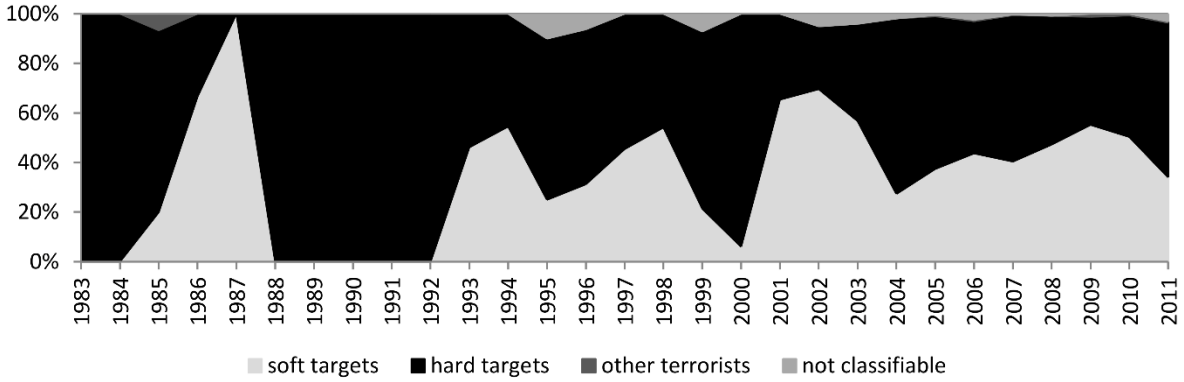
Figure 15: Average number of fatalities per terrorist attack by target type



The Number of Suicide Attacks against Soft Targets

The eighth indicator analyzes the number of suicide attacks against soft and hard targets. Figure 16 depicts the share of suicide attacks according to the type of target. Although the graph starts in 1983 with the suicide attacks of Beirut, the overall number of suicide attacks was very low until the end of the 1990s, making the extreme changes from year to year hard to interpret. From 2000 until 2003, the attacks on soft targets accounted for around 60 percent of all suicide attacks. This number tremendously declined in the year 2004, however it rose up again to 50 percent until 2009. Yet, even if you consider these indicators separately for the different world regions, no significant or continuous shift towards more suicide attacks against soft targets can be detected. As a result, this indicator does not confirm the brutalization thesis either.

Figure 16: Proportion of suicide attacks against soft and hard targets



Number of Beheadings and Fatalities Due to this Sort of Killing

The last indicator to be tested is the number of terrorist attacks in which victims got beheaded and the overall number of fatalities due to decapitations. Figure 17 shows that this sort of killing is indeed a relatively new phenomenon. Apart from single cases in the 1970s and 1980s, beheadings became popular among terrorists in the late 1990s with peaks in 1998 and from 2007-2010. Like many of the indicators before, this indicator shows a low around 2003, when much less beheadings took place than in the years before and after.

Figure 17: Number of beheadings (terrorist attacks and fatalities)

Table 5: Number of beheadings (terrorist attacks and fatalities) in selected countries

	1970s	1980s	1990s	2000-2003	2004-2007	2008-2011
Afghanistan	0 (0)	0 (0)	0 (0)	0 (0)	21 (41)	30 (71)
Algeria	0 (0)	0 (0)	5 (22)	6 (27)	5 (8)	4 (4)
Colombia	0 (0)	0 (0)	0 (0)	5 (77)	0 (0)	2 (3)
India	0 (0)	0 (0)	1 (12)	4 (9)	6 (12)	20 (25)
Iraq	0 (0)	0 (0)	0 (0)	0 (0)	14 (36)	11 (26)
Pakistan	0 (0)	0 (0)	0 (0)	0 (0)	11 (29)	59 (99)
Peru	0 (0)	4 (5)	1 (2)	0 (0)	0 (0)	0 (0)
Philippines	0 (0)	0 (0)	0 (0)	6 (14)	2 (17)	2 (3)
Somalia	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	11 (23)
Thailand	0 (0)	0 (0)	0 (0)	0 (0)	18 (23)	8 (10)

Looking at the regional distribution of beheadings (see table 5) shows that there had been distinct waves in certain countries during which decapitations had been a frequently applied method of terrorism. In the late 1990s and early 2000s, beheadings were common in Algeria. Then Abu Sayyaf in the Philippines used beheadings (or the threat to behead abducted persons) to demand ransom payments between 2000 and 2003. From the mid-2000s onwards there is a significant increase in beheadings in several countries such as Afghanistan, Pakistan, Iraq, Thailand, and since 2009 also in Somalia. In each of these cases, the beheadings were executed by Islamist terrorists, showing the relevance of this form of killing for Islamists. Nevertheless, there are also non-Islamist connected instances of beheadings (for example in Colombia, where FARC-rebels used mass-beheadings in a few instances or in India where followers of the Maoist Communist Party of India beheaded alleged police informers). This indicator shows strong

signs of a brutalization since the late 1990s. Regarding this indicator, we can indeed speak of a new level of brutality that has been entered.

Conclusion: questioning the Brutalization Thesis of "New Terrorism"

In this article, we tested the brutalization thesis which states that one of the main features of the "new terrorism" is its increased brutality compared to "old terrorism." Two potential starting points of such a new terrorism can be distinguished in the literature: the early 1990s and the attacks of 9/11. Based on data from the Global Terrorism Database (GTD), the brutalization thesis tested for both starting points survives only partially.

Table 6: Overview of the results

Indicator	Starting point	
	early 1990s	9/11
1. more terrorist attacks;	no	no
2. more fatalities due to terrorist attacks;	no	no
3. more fatalities per terrorist attack;	partially	no
4. more suicide attacks;	no	yes
5. more terrorist attacks against soft targets;	no	no
6. more fatalities due to terrorist attacks against soft targets;	partially	no
7. average number of fatalities due to terrorist attacks against soft targets;	partially	no
8. more suicide attacks against soft targets;	no	no
9. more beheadings.	no	yes

We tested nine different indicators measuring a brutalization of terrorism. Table 6 gives an overview of the results. Four of the indicators show no signs of brutalization at all, neither for the potential starting point in the early 1990s nor after the 9/11 attacks.

For the others the picture is a bit more complex. The average number of fatalities due to terrorist attacks rose to a volatile but high level in the 1990s which it kept until it fell again in 2008 to a level below the one from the 1980s. This indicator thus shows signs of a brutalization. Yet, the starting point for this development was clearly not 9/11 but about a decade before 2001.

A central point in our reasoning is the distinction between soft (civilian) and hard targets (police, military, government institutions). However, it is important to note that the four indicators drawn from this distinction provide only limited evidence for the brutalization thesis. There is clearly no overall and global increase in the number of attacks against soft targets, which many

supporters of the thesis of "new terrorism" would claim. In the beginning of the 1990s, for the first time, more persons died in attacks against soft targets than in attacks against hard targets. Yet, this finding can be traced back to three periods in which there was an extremely high death toll amongst the civilian population: 1997, 2001 and 2006 to 2008. As we have shown, all three peaks can be explained either by the extreme case of the 9/11 attacks or by specific, local (civil) war configurations which makes the distinction between fatalities due to warfare and those due to terrorism extremely difficult. Thus, these periods are not very well-suited to illustrate a general trend towards a brutalization in terrorism. Summing up, if we may talk of a brutalization based on the distinction between soft and hard targets, it has certainly not started with the 9/11 attacks but already in the early 1990s. The average number of fatalities due to terrorist attacks against soft targets – which could be seen as an indicator of the "effectiveness" of the "new terrorism" – is a good example. But it also has to be mentioned that for this indicator – like for many others as well – we see the brutalization to be even declining in the last years between 2008 and 2011.

The remaining two indicators are the only ones backing the idea that 9/11 could be seen as a starting point for a more brutal terrorism: The first is the number of suicide bombings, which grew strongly in the years after the U.S. invasion of Afghanistan. Brutalization according to this indicator cannot only be seen from the perspective of the victims, but also from the perspective of the individual terrorists themselves, who get exploited in the most fundamental way by the terrorist organizations behind suicide bombings. The second one is the number of beheadings which has grown extensively after 2003. Both indicators are closely connected to certain countries (Afghanistan, Iraq, Pakistan) and Islamist terrorist groups. They both emphasize changes in the terrorists' strategies which focus more and more towards publicity and media attention. These two indicators thus can indeed be regarded as a qualitative difference compared to earlier decades, however, it is questionable if they justify speaking of a new era of "mega-terrorism" or "catastrophic terrorism," which would have led to an entirely new quality of global terrorism.

All in all, the thesis of a brutalization of terrorism has to be qualified. First, we find no strong and definite trend within most of our indicators that would justify to speak of a general trend towards brutalization. Yet there are some hints that there is indeed some brutalization going on. We have to differentiate between a certain general brutalization that has started in the early 1990s (particularly with regard to the average number of fatalities), albeit interrupted by periods of relative "terrorist tranquility," and a brutalization in terms of qualitative changes in the form

of killings which is very much related to the logic of maximizing public and media attention. This second form of brutalization started in the late 1990s and has been particularly strong since the mid-2000s.

In addition, the shift of terrorism from one region to another is much more pronounced than any form of general brutalization. In the 1970s, Western Europe and North America were still the main area of terrorist attacks, whereas in the 1980s, Central and South America were the centers of gravity for terrorism. Since the early 1990s, the major burden of worldwide terrorism can be observed in the Middle East, South Asia and Sub-Saharan Africa. Although in global terms, an overall change of terrorism towards a brutalization of terrorism can hardly be derived from our data, the analyses show that in some regions or countries (in particular Iraq, Afghanistan and Pakistan), sharp increases in the level of "brutality" can be found. Therefore, it could be argued that on the regional level one could indeed speak of a new quality of terrorism – particularly when taking into account suicide attacks and beheadings as the two most relevant qualitative changes in the form of terrorism that could be observed during the last decades. Whether these changes that are regionally limited entail much higher levels of brutality than, for example, the waves of terrorist attacks that have taken place in South America in the 1980s can nevertheless be questioned on the basis of the data presented here.